

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A dye-sensitized photoelectric conversion apparatus, comprising:
a semiconductor layer comprising a photosensitizing dye, wherein a charge carrier generated by allowing light to be incident in the photosensitizing dye can be drawn out through the semiconductor layer,
wherein the semiconductor layer comprises:
a ~~plurality of different energy levels~~ an impurity diffusion layer through which the charge carrier is transferred;
a first semiconductor region having, on a side to which the photosensitizing dye is adhered, ~~an irregular contour~~ a pattern that includes a concave portion and a convex portion; and
a second semiconductor region that is joined to the ~~irregular contour~~ pattern of the first semiconductor region, wherein the ~~plurality of different energy levels~~ impurity diffusion layer in the semiconductor layer ~~are reduced stepwise or~~ has a concentration gradient that varies continuously in a direction of drawing the charge carrier ~~[[out]]~~.
- 2-6. (Canceled)
7. (Currently amended) The dye-sensitized photoelectric conversion apparatus as set forth in Claim 1, wherein the photosensitizing dye is adhered on a surface of the semiconductor layer ~~or impregnated inside the semiconductor layer~~.
8. (Canceled)
9. (Previously presented) The dye-sensitized photoelectric conversion apparatus as set forth in Claim 1, wherein the semiconductor layer comprising the photosensitizing dye and an electrolyte layer are laminated together between a pair of electrodes.

10. (Previously presented) The dye-sensitized photoelectric conversion apparatus as set forth in Claim 1, being comprised as a dye-sensitized photochemical cell.

11-24. (Canceled)

25. (Previously presented) The dye-sensitized photoelectric conversion apparatus as set forth in Claim 1, wherein the first semiconductor region comprises a patterned film implanted with ions.

26. (Currently amended) The dye-sensitized photoelectric conversion apparatus as set forth in Claim 1, wherein the ~~first semiconductor region comprises an~~ impurity diffusion layer has an impurity concentration that decreases in a direction toward an outer surface of the semiconductor layer.

27. (Previously presented) The dye-sensitized photoelectric conversion apparatus as set forth in Claim 1, wherein the first semiconductor region comprises sintered semiconductor particles.

28. (Previously presented) The dye-sensitized photoelectric conversion apparatus as set forth in Claim 1, wherein the second semiconductor region comprises a gap into which an electrolyte material is deposited.